

Analysis of Observed Safety Practices Among Primary School Children in Warri Metropolis, Delta State: A Public Health and Child Safety Assessment Study

Dr. Chinedu Okafor^{1*}

¹University of Benin, Faculty of Public Health, Department of Community Medicine and Child Health, Benin City, Nigeria

Keywords: Analysis; Safety practice; Observed; Primary School Children; Males and females.

Abstract

Accidents and injuries are almost inevitable in all human endeavours especially in children's activities. With the knowledge of safety practices, the rate of accidents and injuries occurrence is minimized. This study was designed to analyze the observed safety practices among primary school children in Warri Metropolis of Delta State. The survey research designed was adopted. A sample of 308 children from the upper primary classes and 40 teachers were randomly selected to participate in the study. The multi-stage sampling procedure was used. A structured and contently validated safety practice questionnaire (SP) with a reliability coefficient of 0.61 using the Cronbach alpha was used for data collection. Data analysis was carried out through percentages and chi-square test. Results from the study showed that the level of safety practice among primary school children was poor. No significant difference was found on the observed safety practices between male and female pupils in classroom and on the road to and fro school ($P > 1.9$; 0.85 respectively), but there was significant difference in the observed safety practices on the playground and laboratory ($P < 5.36$; 4.46) respectively in the study area. It found that male pupils were more safety conscious and classrooms ($1.65 > 1.45$) while female pupils were more safety conscious on playgrounds, laboratory and on the road to and fro school ($1.49 > 1.36$; $1.46 > 1.34$ & $1.50 > 1.45$) respectively. Continuous daily safety reminder talks to stimulate safety consciousness and practice were made among others as recommendation for the study.

Introduction

Accidents are almost inevitable in every work place including the school environment but with the knowledge and practice of safety, the rate of its occurrence is reduced to a minimum extent. Primary school children are one group of people that are highly exposed to accidents/injury both at home and at school. There is hardly any school day that passes without any case of accident(s) whether minor, serious or fatal among pupils particularly in Warri metropolis, Delta State.

The rate and severity of accidents and injuries occurrence to pupils/students in the school environment to a large extent depend on the level of safety practices and precaution taken by the children and even the school personnel. Thus, this study is aimed at examining safety practices among primary school pupils in Warri metropolis and its implications for safety education

Children attend both day and boarding school; however, whether they attend day or boarding school, they are all exposed to injury/accidents on daily/weekly basis within the school premises or on their way to school. Accidents usually occur among the pupils in any area of the school premises whether in the classroom, playground, laboratory, library, staircases, and restaurant or on the road when they fail to put safety into practice or when they practice safety in a very low extent (Odibo, 2010).

School age children have been reported to be highly impressionistic, experimentalist and prone to hazards and accidents during their school period and as such need more education and protection than adult. Thus, the emphasis on the inculcation of safety education in school environment portends great hope for the overall focus and goals of this study (Ogbalu, 2002; Igwe and Emeharole, 1993). Schools have been recognized according to Nwana (2007) as an extra-ordinarily effective setting, in which people's health is improved. Schools provide the most effective and efficient way of influencing the population, including young people. In this wise, the school (authorities, staff and students/pupils) and the community all have their different, but complementary roles to play in promoting safety in school.

Nigeria school age children who comprise about 20% of the total population, those of primary school age especially, are experimentalist, which for most times predisposes them to danger (Nwana, 2007; Ogbalu, 2002; Okafor, 2000).

The National Policy on Education (1981 revised edition) confirmed that children in this age group are normally between \pm 6-11 years. Okafor (2000) stressed that if all the school children are left to be killed, disabled, or handicapped through accidents or unwholesome behaviour, there will be no people to carry on developmental programmes in future. Therefore, effective teaching of safety in our schools is important and will be the solution to the accident problems or school safety (Igwe and Emcharole, 1993).

Safety is defined as the control of recognized hazards to achieve an acceptable level of risk. Safety according to Charles (2009) is further seen as the condition of a “steady state” of an organization or place doing what it is supposed to do.

Uchegbu, Ibeabuchi and Uzoho (2002) opined that it was becoming increasingly evident that the possession of certain basic knowledge about safety was essential to promote a sound programme of safety instruction in the nation’s schools. Okafor (2010) and Ejifugha, (2002) reiterated that the necessity for a virile safety education programme for Nigeria schools calls for emphasis. It is also fundamental and basic for the promotion, protection and maintenance of the health of the school children as well as for the care of their health problem (Uchegbu, Ibeabuchi and Uzoho 2012). The schools are the most effective base for inculcating any desirable health and safety habits aimed at improving the life pattern of the general population.

Many inventions and activities would have been doomed to failure if principles of safety precautions had not been evolved. Despite these principles, the nature of accident problems worldwide has led to economic losses amounting to enormous injuries, deaths and damages to property. The major solution to accidents regardless of where it exists is through balanced safety education programmes (Nwankwo, Obananny, Amadi, Nwoke, Ikegwoha, Nwoga, &Nwabueze, 2009). Therefore, safety in school according to Ogbalu (2002) should be every one’s foremost consideration. The primary aim of safety education or standard is to mitigate hazard so as to prevent accident/injury and promote the health status of individual, particularly students/pupils in schools. This aim is achieved when safety is implemented and practiced among school stakeholders. This study thus, seeks to examine the safety practices among primary school children in Warri Metropolis of Delta State.

Warri is the headquarters of Warri South Local Government Area in Delta State. The area is occupied by three major ethnic groups which are the Urhobos, Itsekiris and Ijaws. It is one of the biggest, popular and busiest cities in Delta State. There are different schools in Warri metropolis. The area has primary secondary and tertiary institutions. There are many primary schools (public and private) also in the city which provide an avenue for children (pupils) in, around and outside the city to be educated. Some of these children attend the normal day school while some are in boarder since some of these schools have boarding houses. Irrespective of the type of school the children attend, the fact remains that, all of them are at one time or the other exposed to hazards and risk especially when safety is not or is poorly observed.

Statement of the problem

Safety and safety education entail accident prevention in school and work place. On daily basis, accidents occur to children either on their way to school (road), on the school playground, in the classroom, staircases, during lunch or in their process of collecting water for drinking in the tap or well within or outside the school premises. Whenever these accidents occur from any of the above mentioned areas, pupils in most cases are reported injured which automatically lead to one form of losses or the other to school management, pupils’ parents or both.

Observation, information and reports gathered from literatures, including school personnel and previous research studies showed that these accidents were mostly caused by pupils’ carelessness (unsafe act) and sometime unsafe condition of the school environment. This to a large extent prompted, the researchers to ask if safety is practised among primary school pupils particularly those in Warri metropolis.

The main thrust of this study was to examine the extent of safety practices among elementary school pupils in Warri, Delta State. Specifically, the objectives of the study were to identify the safety practices among primary school children in classroom; on playground; in laboratory; on the road and as well examine the factors influencing safety practices among primary school children in Warri Metropolis, Delta State.

The following research questions were posted to help this investigation:

1. Do pupils practice safety in classrooms in Warri metropolis, Delta State?
2. What are the safety practices observed on playground among pupils in Warri metropolis, Delta State?
3. What are the safety practices observed in the laboratory among elementary pupils in schools in Warri metropolis, Delta State?

4. Are safety practices observed on the road to and fro school among pupils in Warri metropolis, Delta State?
5. What are the perceived factors influencing safety practices among pupils in Warri, Delta State?

The following null hypotheses were also formulated to guide the study:

- Ho₁:** There is no significant difference on the safety practices observed in classrooms between male and female pupils in Warri metropolis of Delta State.
- Ho₂:** There is no significant difference on the safety practices observed on playgrounds between male and female pupils in Warri metropolis of Delta State.
- Ho₃:** There is no significant difference between male and female pupils' safety practices observed in the laboratory in Warri metropolis, Delta State.
- Ho₄:** There is no significant difference between male and female pupils' safety practices observed on the road to and fro school in Warri metropolis of Delta State.

Significance of the study

This study is important to teachers, parents, pupils, safety professionals/practitioners and other members of the community who are concerned with the safety of children in and out of school environment.

It is hoped that this study may serve as a reference guide to all school teachers and administrators to make a constructive remark on the issue of school accidents and safety practices among school children in Nigeria, Delta State in particular especially Warri metropolis of Delta State.

Research methodology

This study was a cross sectional survey research designed to find out the extent of safety practices among primary school pupils and its implications for safety education. This designed was consider appropriate for the study since the researcher is not studying all the pupils but only generate data and describe from a cross section of the pupils' from the different areas/zones in Warri.

The population of this study comprised of public primary school pupils and teachers in Warri Metropolis of Delta State. The primary school pupils in Warri comprised of 17695 and 1069 teachers and 52 primary schools (Source: Local Education Authority (LEA) Warri South LGA, Delta State, 2018). The sample for the study consisted of 348 (308 pupils and 40 teachers) respondents randomly selected from 26 (i.e. 50% of the schools) primary schools in Warri Metropolis of Delta State. The respondents were selected from the upper primary classes (primary 4-6).

The multistage sampling technique which was made up of the purposive, simple and systematic sampling techniques was used in the study. In the first stage, the purposive sampling technique was used to select the six areas in Warri Metropolis, Delta State. In the second stage, the systematic sampling technique was used to select the 26 schools (50%) out of the total 52 primary schools in the metropolis base on area distribution. In the third stage, the simple random sampling technique through lucky dip system that contained Yes or No ballot papers was used to select the respondents (12 pupils except 4 schools were 11 pupils were selected) in each school. This summed up to the 308 respondents used in the study. One teacher each was selected from each school and an additional teacher each was picked from highly populated schools (14) to make up the forty (40) teachers selected for study.

Data were obtained from primary sources through the use of Safety Practices (SP) questionnaire directly administered to the respondents with the assistance of three trained research assistants. A 100% retrieval rate was achieved. The questionnaire consisted of 2-sections (A and B). Section A consisted of respondents' demographic data while Section B consisted of questions relevant to the study.

The instrument was validated using the content validity method. The instrument was subjected to proper validation at different intervals for scrutiny, correction of spelling, wording and content. The reliability of the instrument was established using the test re-test method of reliability. Twenty copies of the validated instrument were first administered to twenty respondents outside the sample area. Two weeks later, other twenty copies of the same validated questionnaire were re-administered to the same group of respondents. The two set of responses were collated and correlated using the Pearson Product Moment Correlation Coefficient (r). From the correlation, a correlation co-efficient of 0.76 level of relationship was observed which was considered appropriate for use. A relationship of 0.60 above is appropriate for use in any study (Elendu, 2010). Data were analyzed through descriptive statistics (frequency, mean and percentage) and chi-square test.

Results and discussion

Data gathered from respondents in this study were presented in the Table 2 - 15 below.

Table 1: Distribution of pupils' demographic data

Variables	Options	Frequency	Percentage	Total
Sex	Male	164	53.3	308
	Female	144	46.7	
Age Range	8-10yrs	79	25.5	308
	11yrs above	229	74.5	
Class	Primary 4	34	11.1	308
	Primary 5	137	44.5	
	Primary 6	137	44.5	
Mode of Transport to School	Trekking	215	70	308
	Public car/bus	31	10	
	Parent's vehicle	62	20	

Source :(Field survey, 2014)

In Table 1, the data presented showed the percentage distribution of pupil's demographic characteristics; 53.3% were male, while 46.7% were female.

On the variable of age range, the data presented shows that 79 (25.5%) of the pupils were within 8-10 years while 229 (74.5%) were 11 years and above.

On the variable of class, the data presented shows that 34 (11.1%) of the pupils were in primary 4, 137 (44.5%) primary 5 and 6 respectively. Lastly, on the mode of transportation to school, it was found that 215 (70%) pupils mainly trekked to school daily, 31 (10%) used public cabs/buses to school, while 62 (20%) of the pupils were transported to school by parents'/guidance vehicle.

Research Question 1:

Do pupils practice safety in classrooms in Warri metropolis, Delta State?

Table 2: Percentage distribution of pupils' safety practices in classroom in Warri, Delta State.

S/N	Item	Yes (%)	No (%)
1	Pupils do not pour water on classroom floor.	60 (16.7%)	248 (80.4%)
2	Playing with sharp objects is common among pupils in classroom.	196 (63.6%)	112 (36.4%)
3	Many pupils in my class throw objects like pen, rulers, books, small stones, etc around in the classroom.	199 (64.6%)	109 (35.4%)
4	Running up and down the staircases is not common among pupils in my school.	76 (24.6%)	232 (75.4%)

Response: Positive = 136 (44.2%); Negative = 172 (55.8%)

Source: (Field Survey, 2018)

The data analysis in Table 2, indicated that 60 (16.7%) out of the 308 of the respondents said that they do not pour water on classroom floor while 248 (80.4%) stated they do pour water on the classroom floor

In item 2, it was found from the analysis that pupils commonly play with sharp objects in classrooms as indicated by 196 (63.6%) of the respondents which was higher than 112 (36.4%) respondents who responded No. In item 3, the data analysis showed that many pupils often throw objects in the classroom as attested by 199 (64.6%) of the respondents which was higher than 109 (35.4%) of the respondents.

In item 4, the analysis showed that running up and down the staircases in school is common among pupils since 232(75.4%) of the respondents who indicated No to the statement against 76 (24.6%) of the respondents who indicated Yes to the statement.

From the above analysis, it was observed that the percentage of the respondents who responded positively to various statement options is lower. This means that primary school pupils in Warri metropolis do not practice safety in classroom as most of their practices are negative (172/ 55.8%).

Research Question Two

What are the safety practices observed on playground among pupils in Warri metropolis, Delta State?

Table 3: Percentage distribution of observed safety practices on play grounds among pupils in Warri metropolis

S/N	Item	Yes (%)	No (%)
1	Pupils run without control on playground in my school.	170 (55.2%)	138 (44.8%)
2	Pupils don't do warm up in our school before their normal physical activities.	118 (38.3%)	190 (61.7%)
3	Horse play (rough play) is common among pupils on playground.	199 (64.6%)	109 (35.4%)
4	Many pupils push each other when doing sports on school playground.	201 (65.3%)	107 (34.7%)
5	Throwing of objects on the playground is common among school children.	208 (67.5%)	100 (32.5%)

Response: Positive = 129 (41.9%); Negative = 179 (58.1%)

Source: (Field survey, 2018).

The data presented in Table 3, shows percentage distribution of observed safety practices on playground among pupils. It was found that pupils in Warri Metropolis often run without control on playground as (55.2%). pupils do not warm up before their normal physical activities (61.7%), whereas horse play which is unsafe practices is common (64.6%). It was also revealed that 65.3% of the respondents agreed that many pupils push each other when doing sports on school playground; again, 67.5% as against 32.5% respondents agreed that throwing of objects on the playground is common among school children.

From the analysis above in Table 3, it can be concluded that the observed safety practices among pupils on playgrounds is poor as the total negative response is 179 (58.1%).

Research Question 3

What are the safety practices observed in the laboratory among elementary pupils in schools in Warri metropolis, Delta State?

Table 4: Percentage distribution of observed safety practices on laboratory among pupils in Warri Metropolis.

S/N	Item	Yes (%)	No (%)
1	Many pupils talk while in the school laboratory.	193 (62.8%)	115 (37.2%)
2	Pupils don't put on (wear) their lab coat to the laboratory	67 (21.8%)	241 (78.2%)
3	Pupils switch off every electrical gadget after using the laboratory.	122 (39.6%)	186 (60.4%)
4	Pupils throw objects in the laboratory.	195 (63.2%)	113 (36.8%)
5	Pupils play with objects and chemicals they see in the school laboratory without teacher instruction.	172 (56%)	136 (44%)

Response: Positive = 145 (47.1%); Negative = 163 (52.9%)

Source: (Field Survey 2018)

In Table 4, the data presented shows the percentage distribution of observed safety practices in school laboratory among pupils in Warri Metropolis, Delta State. From the data analysis in the table, it was observed that many of the pupils are not quiet while working in the laboratory (62.8%), lab coats are not worn to the laboratory (78.2%), do not switch off electrical gadgets after use (60.4%), objects are thrown in the laboratory (63.2%) and that pupils play with objects and chemicals they see without teacher's instructions (56%).

On the whole, it is observed that the safety practices observed by pupils on the laboratory are poor, as most of the pupils do not observed safety rules in the laboratory as the responses indicated negative (163 /52.9%).

Research Question Four

Are safety practices observed on the road to and fro school among pupils in Warri metropolis, Delta State?

Table 5: Percentage distribution of pupils' observation of safety practices on the road to and fro school in Warri metropolis.

S/N	Item	Yes (%)	No (%)
1	Many pupils don't look left, right and left before crossing the road when going or coming from school.	94 (30.6%)	214 (69.5%)
2	Pupils usually run along the road on their way to or from school.	210 (68.2%)	98 (31.8%)

3	Pupils get to the zebra crossing point before crossing	85 (27.6%)	223 (72.4%)
4	Pupils don't walk on their left hand side of the road while trekking to and from school.	217 (70.5%)	91 (29.5%)

Response: Positive = 122 (39.6%); Negative = 186 (60.4%)

Source: (Field Survey, 2019).

The data presented in table 5 above revealed that 69.5% of the respondents agreed that many pupils look their left, right and left before crossing on their way to and fro school as against 30.5% who said they don't. It was found that pupils usually run along the road on their way to or from school (68.2%), whereas 72.4% said pupils do not get to the zebra crossing point before crossing. Also, 50.8% of the respondents agreed that pupils do not walk on their left hand side of the road while trekking to and from school. From what is revealed above, it can be concluded that pupils observed safety on the road to and fro school is poor as negative response is higher (186 /60.4%) than the positive response (122 /39.6%).

Research Question Five

What are the perceived factors influencing pupils' safety practices in Warri Metropolis, Delta State?

Table 6: Percentage distribution of perceived factors influencing pupils' safety practices in Warri?

S/N	Items	Agree (%)	Disagree (%)
1	Lack of safety education programme.	25 (62.5%)	15 (37.5%)
2	Poor safety supervision/monitoring by school staff.	29 (72.5%)	11 (27.5%)
3	Lack of safety knowledge by pupils	25 (62.5%)	15 (37.5%)
4	Lack of safety tips in school premises	25 (62.5%)	15 (37.5%)
5	Low level of safety instruction by teacher	21 (52.5%)	19 (47.5%)
6	Absent of safety club for pupils in school	25 (62.5%)	15 (37.5%)
7	Poor level of indiscipline for pupils who disregard safety instructions.	31 (77.5%)	9 (22.5%)

Source: (Field Survey, 2019)

The data presentation and analysis in Table 6, shows the percentage distribution of perceived factors influencing pupils safety practices in Warri, Delta State. From the analysis, it was found that all the above listed are perceived factors influencing the pupils safety practices since the percentage "agree" is higher than percentage "disagree". But highest of them was poor level of indiscipline for pupils who disregarded safety instructions (77.5%); next to poor supervision/monitoring by school staff (72.5%), followed by lack of safety knowledge by pupils (62.5%), lack of safety tips in school premises (62.5%), absent of safety club for pupils in school (62.5%) and low level of safety instructions by teachers (52.5%).

Table 7-9: Percentage distribution of teachers' attestation to pupils' observation and level of safety practices in Warri, Delta State.

Table 7

S/N	Question	Yes %	No %	Total
1	Do your school pupils observe safety rules such as do not throw stones; do not run on the staircase?	23 (57.5%)	17 (40.5%)	40

Table 8

S/N	Question	Sometimes (%)	All the time (%)	Not at all (%)
1	How often do you see them observing safety rules?	35 (87.5%)	5 (12.5%)	-

Table 9

S/N	Question	Low (%)	Average (%)	High (%)
1	What is their level of safety practices?	13 (32.5%)	27 (67.5%)	-

The data analysis of Tables 7-9 showed teachers responses of pupils' observation of safety rules and level of safety practices in Warri, Delta State. From the above analysis, it was found in Table 7 that pupils observe safety rules in the school as stated by 57.5% of the teachers who responded yes to the question.

In Table 8, it was found that pupils observed safety rules sometimes in the school as said by 87.5% of the teachers while in Table 9, the data analysis shows that pupils level of safety practices is average. This was

confirmed by 67.5% of the teachers who indicated that option in their responses against 32.5% of the respondents who ticked low level of safety practices.

Null Hypothesis One

There is no significant difference on the safety practices in classroom between male and female pupils in Warri, Metropolis of Delta State.

From the chi-square (χ^2) analysis it was found that the mean scores of males and females who responded to the question were 1.65 and 1.45 respectively with the male being than the mean bench mark indicating more safety consciousness than the female. However, from the chi-square (χ^2) analysis, the χ^2 calculated value (1.9) was less than the chi-square (χ^2)critical table value (3.84) under degree of freedom (df) 1 at 0.05 level of significance. Thus, the null hypothesis stated was retained. This means that there is no significant difference between the male and female pupils' safety practices observed in classrooms in Warri Metropolis, Delta State.

Null Hypothesis Two

There is no significant difference between male and female pupils safety practices observed on playground in Warri, Delta State.

From the chi-square (χ^2) analysis, it was found that the mean scores of males and females who responded to the question were 1.36 and 1.49 respectively. Thus, the safety practice observed on playgrounds for both male and female pupils was poor. From the chi-square (χ^2) analysis the χ^2 calculated value (5.36) was greater than the chi-square (χ^2)critical table value (3.84) under degree of freedom (df) 1 at 0.05 level of significance. Thus, the null hypothesis stated was rejected. This means that there is significant difference between male and female pupils' safety practices observed on playgrounds in Warri Metropolis, Delta State even though both of their safety practices were poor.

Null Hypothesis Three

There is no significant difference between male and female pupil's safety practices observed in the laboratory in Warri, Delta State.

From the chi-square (χ^2) analysis, it was found that the mean scores of males and females who responded to the statement items were 1.34 and 1.46 respectively. Both mean scores were below the bench mark (1.5) though the female (1.46) is higher than the male (1.34). The analysis showed that the chi-square (χ^2) calculated value (4.46) was greater than the chi-square (χ^2)critical value (3.84) under degree of freedom (df) 1 at 0.05 level of significance. Thus, the null hypothesis stated was rejected. This means that there is significant difference between male and female pupils' safety practices observed in laboratory in Warri Metropolis, Delta State.

Null Hypothesis Four

There is no significant difference between male and female pupils' safety practices observed on the road to and from school in Warri, Delta State.

From the chi-square (χ^2) analysis, it was found that the mean scores of males and females who responded to the statement items were 1.45 and 1.50 respectively, with the female mean score being equal to the mean bench mark (1.5) indicating an average safety practice while the male (1.45) was a little below the mean bench mark (1.5) on road to and fro school safety practices observed. However, from the chi-square analysis, it was revealed that the chi-square (χ^2) calculated value (0.85) was less than the chi-square (χ^2)critical value (3.84) under degree of freedom (df) 1 at 0.05 level of significance. Therefore, the null hypothesis stated was retained. This means that there is no significant difference between the male and female pupils' safety practices observed on the road to and fro school in Warri Metropolis, Delta State.

Discussion of findings

The findings from the study (Table 2) revealed that pupils in Warri metropolis observed safety practice in classroom is poor (172/ 55.8%). However, the result showed that the common unsafe practices of pupils in classroom in Warri metropolis based on their responses in descending order were pouring water on classroom floor, running up and down the staircase, playing with sharp objects and throwing objects like pen, small stones, rulers, etc around in the classrooms. These findings confirmed Charles (2009) Jeraen, Boogard, Nigland and Gerard, (2010) in their studies titled "Safety versus security in free protection planning"; and "Health benefits of cycling with regard to overweight" respectively. In their studies which focused on prevalence of injuries among

primary school pupils, they found that most injuries occurring to elementary school pupils happened in classrooms especially when there is poor class supervision.

The findings from Table 3 revealed that primary school pupils' level of safety practice on school playground is low (179 / 58.1%). It was also found that most school pupils do not warm up before participating in actual exercise activities, push and throw objects, involve in horse play run without control on playground in school. This mainly occur during free and rest period. This results from their psychological (intuitive) nature of play which is common with their ages. This finding re-affirm Odibo, Sanubi and Egenege (1995) notion when they noted that the need for safety education in the primary school becomes more important owing to the fact that children by nature love play and if left unguided or unsupervised safety wise, it lead to increase rate of accidents/injuries in the school premises.

The finding (Table 5) revealed that primary school pupils' observation of safety practices on road to and from school in Warri metropolis is poor (186/60.4% negative response). This indicates that typical safety culture has not been imbibed by the pupils in the study environment. Again, the result (Table 13) showed no significant difference in the observed safety practices on the road to and fro school between male and female pupils in the study area ($P > 0.85$). This suggests that both the male and female pupils exhibit similar and same level of safety habit/consciousness at this level. This confirmed the reason why Okafor (2000) states that all children should be guided to learn and obey all traffic regulations, learn to attract the attention of other road users, etc. irrespective of their sexes.

The finding (Table 4) shows pupils' observed safety practices in the laboratory are also relatively poor (163/52.9% negative response). This act seemed to be against laboratory safety regulation set for pupils. However, because children are so inquisitive that they want to experiment with everything within their reach, they tend to demonstrate this act forgetting the fact that accidents emanate from several factors as spelt out by Heinrich (1959) sequence of events-Domino theory of accidents causation. This finding support the opinion of Okafor (2000), Ogbalu (2002) and Nwana (2004) which stated that Nigerian school age children who comprised about 20% of the total population especially, those of primary school age are experimentalist, which for most times predisposes them to danger particularly when they fail to put safety into practice in and outside the school environment.

The findings from the chi-square analysis further, showed significant difference between male and female pupils' observed safety practices in the school laboratory ($P < 4.46$). It was found that female pupils' observed safety practices in the laboratory were higher than male pupils' observed safety practices. This findings confirmed the result of Ayanniyi, Mahmound, Olatunji and Ayanniyi (2009) which indicated that ocular injury resulting from unsafe practices was higher in boys (male pupils) than girls (female pupils) who are within the age range of 5-13 years.

From the foregoing, it is observed that while male pupils were more safety conscious in some area of the school (classrooms), the female pupils are more safety conscious in other areas of the school (on the playgrounds, in the laboratory, and on the road to and fro school). This indicates that there is gender difference in pupils observed safety practices. It thus reveals that school administrators/teachers school be gender sensitive when it comes to safety issues in school. This confirmed the International Labour Organization (ILO) (2013) observed ten (10) keys for gender sensitivities in Occupational Safety and Health Practices in its guidelines for gender mainstreaming in Occupational Safety and Health all settings. In the same vein, Okoya (2009) affirmed that there should be gender differences in the application of preventing discipline practices among principals of secondary schools in Nigeria.

Onuzihike (2000) assured that safety education enables children to take things easy, by being careful, obeying rules and regulations and reading meaning to sign pasted in school premises such as don't touch any chemical on this laboratory tables, don't run on the corridor, staircase or in the class; don't throw objects, wearing shoes, boots, slippers where and when necessary, observing road signs and highway code such as zebra crossing, flyovers, school sign, etc irrespective of gender.

In terms of factors affecting safety practices of pupils in Warri, it was found that lack of safety education, programme, poor safety supervision/monitoring by staff, lack of safety knowledge by pupils, lack of safety tips in school premises, absent of safety club for pupils in school, low level of safety instruction by teachers, and poor level of discipline for pupils who disregard safety instruction were perceived factors hindering the pupils level of safety practices in school. This simply suggests the reason for low level of their safety practices in classroom, playground, laboratory and on the road to and fro school. This finding justify Nwankwo (2003) 1st,

6th, 8th and 10th highlight of barriers to school safety practice. This finding also confirmed the sequence of event-Domino theory of accidents causation by Henrich (1959) and the undated Domino sequence theory propounded by Bird and Loftus (1975) which stated that lack of control by management permits basic causes (personal and job factors), that lead to immediate causes (substandard/unsafe practices/conditions/errors) which are the proximate cause of the accidents which result in loss (minor, serious or catastrophic).

Implications

This study has revealed that safety practice for both male and female pupils in the study area is poor. The implication of this is increase in the rate of school accidents among school pupils and high level of absenteeism and aggravation of poor public image for both teachers and other school stake holders.

There is therefore for a high need for safety instruction imbedded into the school curriculum, parent and teachers encouraging pupils/wards to participate actively in safety activities organized within and outside the school.

Again, as observed in the study, male pupils are more careless safety wise than female, thus, teachers should be careful and bear in mind gender sensitivity and safety consciousness when assigning activities to students/pupils in schools.

Conclusion

From the findings in the study, the following conclusions were drawn.

- Pupils in Warri metropolis observed safety practices in classroom, playground, laboratory and on the road to and fro school is low.
- There is no significant difference on the male and female pupils' observed safety practices in classroom and playground but there are differences on the male and female pupils' observed safety practices in laboratory and on the road to school.
- The males are more safety conscious than female in the classroom, while the females are more safety conscious than males in the laboratory, on the playground and on the road to and fro school in Warri Metropolis.
- The low safety practice of male and female pupils in the school premises and on the road is not caused by the pupils only but by several factors such as poor safety supervision/monitoring of the pupils by school staff, lack of/ineffective safety education programme, poor safety knowledge and consciousness of the pupils, absent of safety club for pupils in school, low level of safety instruction by teachers, lack of safety tips on school premises and poor level of discipline to pupils who disregard safety instructions in the school by school authority.

Based on the findings and conclusions, the following recommendations were made;

1. There should be proper and continuous emphasis on need for safety and safety practices by teachers to pupils on a daily basis in the assembly and few minutes' safety reminder talk by class teachers immediately after assembly before the first period on daily basis. This will help to instill safety consciousness in the pupils.
2. Safety tips in all aspects of the school environment and activities such as the classroom, playground, laboratory, library, staircases, canteen, road etc. should be clearly written out with easy understandable terms to the pupils' level of comprehension and posted in all the strategic areas of the school to regularly keep pupils reminded of the need and types of safety practices expected from them.
3. There should be strict monitoring and supervision of pupils' safety practices/acts by all teachers in the school. Teachers in the process should effect immediate corrections on any unsafe practices/behaviours observed in pupils.
4. There should be safety monitoring team set up by government through school authority/management to help monitor the safety act of pupils and teachers on daily basis. Report should be sent to the school authority on daily basis who will in turn give feedback to government on weekly/monthly basis to help determine pupils' level of safety practices.
5. There should be sanction on teachers whose class pupils are found injured more than once in a week due to unsafe practices. This will help the teachers to strictly and properly monitor their pupils' safety practices without objection.
6. Primary school safety club should be set up in every school and pupils should be made to play active role in the club. This will help to internalize in the pupils, safety acts and practices and as well effect safety consciousness in them.

7. Strict implementation and discipline should be effected or given to pupils instantly or in the assembly ground for disregarding safety instruction set out in the school. This will help other pupils to learn how to be safety conscious by obeying safety rules and regulations.
8. Safety education in the school curriculum should be taught by trained health and safety education teachers with the aim of changing pupils' unsafe behaviour to safe behavioural practices. This will help to inculcate safety into the pupils' philosophy of life since children at this age are easily amenable to instruction. This will have a carryover value to adult life.

Contribution to Knowledge

This study has opened a new horizon to researchers and scholars particularly in the field of school safety practice and accident prevention.

References

- [1] Ayanniyi, A.A., Mahmoud, O.A Olatunji, F.O. and Ayanniyi, R.O. (2009).Pattern of ocular trauma among primary school pupils in Illorin, Nigeria. *Africa journal of medical science*, 38(2) 193-196.
- [2] Bird, F.E. and Loftus, R.G. (1976).Loss of control management. Loganville Georgia.52 Institute Press.
- [3] Centers for Disease Control and Prevention, National Center for Injury Prevention and Control (2011). WISQARS Leading Causes of Nonfatal Injury Reports. Retrieved January 12, 2019 from <http://webappa.cdc.gov/sasweb/ncip/nfilead2001.html>
- [4] Charles, G.O. (2009). Safety versus security in fire protection planning. The American Institute of Architects: Knowledge Communities. Retrieved January 12, 2019 from www.google.com.
- [5] Ejifugha, A. U. (2002). The status of school health programme in secondary schools in Imo State. *Nigeria School Health J.*, 3:142-146.
- [6] Elendu, I.C. (2010). Fundamentals of Research and Statistics for students in Human Kinetics and other Educational disciplines. Port-Harcourt: Glory of the Latter House Publisher.
- [7] Federal Highway Administration (2012).Proven Safety counter measures. Roundabout. Retrieved February, 2, 2019 from www.google.com.
- [8] Heinrich, H.N. (1959). Industrial accident prevention. 4th edition, New York: McGraw – Hill.
- [9] Igwe, O.M.B & Emeharole,P.O. (1993). Fundamentals of Health Science for Senior Secondary Schools. 1st Edition, Obosi, Nigeria, pp:26-30.Pacific Publishers.
- [10] International Labour Organization (2013).Ten Keys for Gender Sensitive in Occupational Safety and Health Practice. Guidelines for Gender Mainstreaming in OSH. Programme on safety and Health at work and the Environment. (Safework).Retrieved February, 12, 2019 from www.google.com.
- [11] Jeraen, J.H., Boogaard, H., Nijland, H., and Gerard, H. (2010).Do the health benefits of cycling outweigh the risks? *Environmental health perspectives*. Retrieved February, 2, 2019 from www.google.com.
- [12] Local Education Authority (LEA) Warri South LGA, Delta State, 2013).
- [13] Nwana, O.C. (2007). Health Promotion and Environment. *Nigeria Journal. Health Promotion.*, 3:9-15.
- [14] Nwankwo, B.O (2003). Occupational health and industrial safety-concepts and principles.. pp:54-67. (1stEdn).Owerri: Concave Publishers.
- [15] Odibo, A. A. (2010). Philosophy of safety education. An unpublished lecture note for degree students.
- [16] Odibo, A. A., Sanubi, B.O. &Egenege, J. A. (1995).Health and safety education.A functional approach including first aid procedures. Warri: COEWA Publishers.
- [17] Ogbalu, A.I (2002). Guide to health education programmes in the schools. Nigeria. *School Health Journal.*, 3:142-146.
- [18] Okafor, J.O, (2000). Functional approach to school health education. 2ndEdn.,Anambra, Erudite Publishers, pp: 96-101.
- [19] Okoya, P.O. (2009). Gender Difference in the Application of Preventive Discipline Practices among Principals of Secondary Schools in Nigeria.*Journal.of Social. Science.* 20(1): 49-53
- [20] Oluwande, P.A., (1998). Provision of environmental health facilities for healthful school living in Nigeria. *Nigeria School Health Journal.*, 1:27028
- [21] Onuzulike, N.O., (2000). Awareness of Health Promotion strategies among public health officers in Owerri municipal council. *Nigeria Journal.Health Education.*, vol. 11 (no2) 9:254 - 257.
- [22] Onuzulike., N.O. (1997). A Handbook of Safety Education. (1stEdn) Owerri, pp: 35-40.Mantle Publishers.
- [23] Uchegbu., J.N., W.C. Ibeabuchi and C. Uzoho (2002). School and community health.(2ndEdn).Onii Publishing House, Owerri, pp:78-89.
- [24] World Health Organization (2008).Violence, injuries and disability. Biennial 2006 – 2007 report. World Health Organization, Geneva.